Ysleta ISD Long-Range Technology Plan
Instructional Objectives:
Technology for Learning

Instructional Goals and Objectives:
2001-02 through 2003-04 (continued)

Digital Portfolios

Digital portfolios are included as one of the sections of the Technology Applications benchmarks and expectations developed in June 2000 by a YISD team of instructional technology specialists.

Building on that document as a starting point, the goals and objectives for the use of digital portfolios include:

Goal: Develop a specific definition of digital portfolio to include the type of work to be included, the storage format, the space requirements and allotments per student, and the responsibility for long-term storage and accessibility of the material.

Goal: Ensure that campuses understand the definition of digital portfolio as it is used as an instructional goal in the YISD.

Goal: Provide campuses with the technical requirements to implement digital portfolios.

Goal: Provide teachers and administrators with training to understand the use and value of digital portfolios, and to help them plan for the most effective implementation of digital portfolios at their campuses.

Ysleta ISD Long-Range Technology Plan
Instructional Objectives:
Technology for Learning

Instructional Goals and Objectives:
2001-02 through 2003-04 (continued)

Standards for Campus Technology

These standards are important to the YISD to set levels for technology in two distinct areas:

- clear requirements for the amount of technology on District campuses, and
- plans for increased use of technology in daily instruction

Goal: To establish clear minimum requirements for technology at YISD campuses, including library resources, classroom computers, computer labs, and teacher access to technology resources.

Goal: Based on campus ICAPs, to ensure that campuses identify annually either new technology initiatives or enhance-ments to existing initiatives, with implementation schedules, schedule of activities, desired outcomes, and a process(es) for evaluation.

Instructional Goals and Objectives: 2001-02 through 2003-04 (continued)

Video in the Classroom

In the fall semester of the 2000-01school year bids were solicited for instructional video applications, including streaming video and video on demand.

Campuses have in the last several years asked for the capability to include video in a variety of ways in the classrooms:

- to have the capability to schedule video segments or entire presentations from previously taped productions, to be shown in conjunction with classroom work
- to use interactive video in the classroom

The goals and objectives are provided for the 2001-02 school year to mirror the purpose of the E-rate contract award. The E-rate award was for pilot projects for both streaming video and video on demand on ten campuses.

Goal: To solicit proposals from campuses for initiatives employing streaming video and video on demand in instructional settings.

The pilot projects will be set up at ten campuses, based on type of project, availability of current campus resources to implement and complete the pilot, and suitability for use as a model for other campuses.

Beyond the pilot projects, the District intends to establish goals for the use of video in instructional settings at all grade levels, beginning with an emphasis in the secondary level.

Goal: To provide campuses with ideas for the use of streaming video in instructional settings, to ensure that technical facilities are in place to support the use of streaming video, and to ensure that campus staff are trained in the use of streaming video.

Instructional Goals and Objectives: 2001-02 through 2003-04 (continued)

Video in the Classroom (continued)

Goal: To provide reliable facilities for distribution of video on demand, and to ensure that training is provided in the best use of video on demand.

Distance Learning

Distance education includes a variety of technological applications, including:

- ✓ college courses for credit for high school students
- ✓ high school courses in advanced courses such as calculus, science, language (e.g., French IV, Latin IV, etc.)
- ✓ high school courses that allow middle school students to enroll for credit (e.g., Algebra I, first year language courses, etc.)
- ✓ virtual high school
- ✓ staff development

Goal: To provide for distance learning applications in a variety formats, including classroom facilities, individual work stations, and small groups of students.

Goal: To provide teachers with opportunities through distance education to attain graduate degrees and/or additional certification.

Goal: To provide distance learning methodology training for teachers, to increase the number of teachers willing to teach in a distance learning environment.

Ysleta ISD Long-Range Technology Plan
Instructional Objectives:
Technology for Learning

Instructional Goals and Objectives:
2001-02 through 2003-04 (continued)

Distance Learning (continued)

Goal: To develop a distance learning program that formalizes the YISD approach and philosophy on distance education, including technical and non-technical issues (scheduling, teacher training, curriculum development).

Goal: To continue the developmental work for a Virtual High School.

Technology and Individual Learning

The District has at all times ensured that the technology initiatives made positive differences in the educational life of all students. To that end, the instructional goals of the district also include the assistive technology that bring network resources and other instructional technology to special needs children.

Goal: To develop a plan that addresses the technology requirements of special needs children.

Goal: To ensure that the District Home Bound program makes the most effective use of instructional technology for the students (both long-term and short-term) in the program.

Ysleta ISD Long-Range Technology Plan
Defining a Networked Environment

Starting Point for the YISD Network

The YISD Long-Range Technology Plan of 1993 called for the implementation of an integrated telecommunications network.

The network would ultimately provide voice, data, and video services, and it would serve the instructional and administrative needs of the District.

The district's plan called for a phased approach that ensured cost-effectiveness and provided flexibility to the district to incorporate new technologies in the network infrastructure.

A History of Innovation

The intent from the inception of the YISD network was that it would ultimately provide for all the telecommunication services required by the district.

This abbreviated history of the effort to install the network explains how the network was built in carefully planned segments, and what the upgrade paths are for the district.

The explanation of the implementation history details the work on the data network, and separately the work on the telephone network.

With the implementation of a leased fiber network in 2001-02, already completed upgrades to the campus LANs, a networked telephone system and and planned installation of Voice over IP telephone solution, that convergence is very close to reality.

The creation of the YESnet has centered around essentially three key components: establishing the **basic infrastructure and connectivity**; **enhancing the local area networks'** capacity and functions; **maximizing the capacity and speed of the wide area network bandwidth**.

A History of Innovation (continued)

Providing the Basic Infrastructure

The YISD Technology Plan of 1993 called for the creation of a network infrastructure that would initially support the District's administrative systems – i.e., the student administrative system and the finance system – and provide connectivity for a small number instructional locations selected by each campus (computer labs, libraries, and classrooms).

The intent of the YISD was to begin the installation of a network that would ultimately provide resources for all the instructional and administrative requirements of the district.

The basic connectivity included a high-speed connection between the central office and each of the campuses; an integrated local area network at each campus; and a connection between the central office and a reliable internet service provider.

Phase 1. The wiring and electronics acquisition was begun in the 1994-95 school year for the YISD wide area network (WAN).

In Phase I of the project, the District completed the following portions of the District wide area network:

- ✓ Completing a T-1 connection between central office and every campus.
- ✓ Creating a main communication room at central office and at every campus for all telecommunication lines and wide area network electronics (router, hubs, servers).
- ✓ Wiring for campus administrative work areas and selected instructional locations (libraries, labs).

Phase I of the network project was concluded in the Fall semester of 1995, with the connection of all campuses to the YISD central office, and the beginning of each campus local area network (LAN).

Phase 2. Phase II of the network project began during the spring of 1995-96, and was completed during the late fall of the 1996-97 school year.

A History of Innovation (continued)

Providing the Basic Infrastructure (continued)

Phase II was a continuation of Phase I, and included the extension of the campus LAN to all instructional areas in the main campus building(s).

The primary emphasis of Phase II was to provide a network connection in every classroom in the main building at the campuses.

- ✓ If campuses required additional network drops in the administrative areas, those drops were installed.
- ✓ If the campuses required Intermediate Distribution Facility(ies), those IDFs were provided (including hubs and high-speed Ethernet switch).

Enhancing the Local Area Networks

Once the basic infrastructure and connectivity was established, the district addressed the upgrade requirements for the campus LANs.

The enhancements that have been provided include:

- ✓ **Improved proxy services.** Beginning with TIF grants for five of the highs schools in the 1996-97 school year, the District moved to increase the services at the LAN level. The high schools were provided with proxy servers that performed content filtering, dynamic internet addressing and other internet administration tasks, and internet caching.

  Four middle schools received similar TIF grants in the 1997-98 school year, and in the 1998-99 school year the District acquired, with E-rate discounts proxy and e-mail servers for each of the campuses.

- ✓ **Upgrading the environment** from a 10 Mb shared environment to 100 Mbs switched. This upgrade was

A History of Innovation (continued)

Enhancing the Local Area Networks (continued)

completed in the spring of the 1999-2000 school year for all campuses.

- ✓ **Ongoing Connectivity Initiatives.** Since the completion of the second phase of the basic infrastructure installation, the district has extended the reach and functionality of the campus local area networks.

  Each year, there is a portion of funds set aside for wiring at the campuses. The wiring connects portables, stadiums, field houses, and other buildings away from the main building. Computer labs are wired, and classrooms within the main building are re-wired and provided with upgraded network electronics in some cases.

Upgrading the YISD Wide Area Network (WAN)

The upgrades to the YISD WAN center around two areas:

- ✓ the YISD connection to the Internet, and
- ✓ the connections between the central office and the campuses

Upgrading the YISD Connection to the Internet. Initially, the YISD connection to the Internet was via a single T-1 line connection from the YISD central office to THEnet in Austin (via UTEP). THEnet, a gateway to the Internet for educational entities, was the YISD connection to the Internet.

Since that time, YISD has responded to increased demand for Internet resources by:

- ⇩ adding a second T-1 connection to the Internet via Region 19 and the state General Services Administration (1999-2000 school year)
- ⇩ adding a third Internet connection via a third-party ISP (2000-2001 school year)

A History of Innovation (continued)

Upgrading the YISD Wide Area Network (continued)

- implementing in 2000-01 a T-1 load balancing solution that will optimize the performance of the three Internet connections

Upgrading the Connections between Central Office and the Campuses. Initially, the YISD connection from central office to the campuses was a T-1 line. With increasing demands for bandwidth, YISD has responded with upgrades that improve the data and telephone service:

- adding a second T-1 connection to campuses where demand was the greatest (typically high school campuses with heavy Internet usage)

As noted in the description of the telephone network, additional T-1s were provided specifically for phone service. Under the goals and objectives for the YISD network, the implementation of a leased fiber network is the solution for increased WAN bandwidth for the nest several years.

A Picture of the 2000-2001 YISD Network

YISD Data Network

With the upgrades that have taken place over the last several place to the initial YISD infrastructure initiatives, the picture of the YISD data network features these characteristics:

- Load balanced connection to three Internet providers (THEnet, Region 19, and a commercial ISP)
- Content filtering (district license for filter software, with campus ability to tailor filtering)

A Picture of the 2000-2001 YISD Network (continued)

YISD Data Network (continued)

- Multiple T-1 lines from the central office to the campuses, for all data connectivity (instructional and administrative systems) and voice connectivity
- Cisco routers installed at central office during the 2000-01 school year, with T-1 and fiber interface and capability to support VoIP
- Campus upgrade of routers (Cisco) during the 2000-01 school year (project completion in Spring/Summer) to prepare campus LANs to support fiber and VoIP solutions
- Campus LAN fiber backbones, 100Mbs switched environments
- Internal LAN connections to all administrative and instructional areas

YISD Telephone Network

The YISD telephone network was planned in conjunction with the data network and, as noted earlier, the ultimate goal is convergence of the two networks. Several telephone upgrades have prepared the district to achieve the goal a unified telecommunication network.

Initial Wiring. As part of the wiring for the data network, cabling was also run to every administrative location and every classroom for a telephone connection.

Standardized Telephone Switches. At the initiation of the network implementation in 1994-95, each campus had a non-standard telephone switch, which meant that the Telecom department had to stock parts for the different phone switches and employ technicians with experience with variety of equipment and systems at the campuses.

A Picture of the 2000-2001 YISD Network (continued)

YISD Telephone Network (continued)

In March 1995, the upgrade of all campuses to an Option 11 switch was begun. This was the first step in a multi-step process to equip the district with a standard, networked telephone solution.

All campuses would be equipped with Option 11 switches and compatible phone equipment by July 1997.

Networking the Campuses. With E-rate funding, the District in 1999 acquired a Nortel SL100 switch that networked the entire district. The features that the district was able to implement with the installation of the SL100 included:

- Providing a telephone in every classroom
- 5-digit dialing for the entire district
- Voice mail for every district telephone user
- Automated attendant for every campus, with customized menus of service
- Homework hotlines and other automated information services for each campus
- Disaster recovery service and alternate paths for phone service in the event of interruption to primary service

Network Goals and Objectives: 2001-02 through 2003-04

Improving YISD's Connection to the World

The plans for continued enhancement of YISD connection to the Internet include:

Goal: To plan for increased bandwidth to the Internet in the immediate future via enhancements to the load-balanced environment.

Network Goals and Objectives: 2001-02 through 2003-04 (continued)

Improving YISD's Connection to the World

Goal: To plan for increasing bandwidth to the Internet, via DSL or comparable bandwidth solutions.

Goal: To use E-rate discounts for district wide solutions for Internet access.

Improving WAN Connectivity

The plans for continued enhancement of the bandwidth of the YISD WAN include:

Goal: Implementation of the Time Warner leased fiber solution in the Fall semester of the 2001-02 school year. This solution will improve the central office-campus connection to 100Mbs (for every campus).

Goal: To plan for possible increase in WAN bandwidth, via increased capacity fiber connection or through other solutions such as wireless.

Improving Campus LANs

The plans for continued enhancement of the campus local area networks include:

Goal: Completion of the campus router upgrade by the Fall semester of the 2001-02 school year.

Goal: Plan for the optimal timing for increases beyond 100 Mb processing for the campus backbones (gigabit speeds, etc.).

Goal: In conjunction with the campus router upgrade, to plan for the Voice over IP (VoIP) communication solutions planned for the 2001-02 and 2002-03 school years

Network Goals and Objectives: 2001-02 through 2003-04 (continued)

Improving Campus LANs (continued)

Goal: Ongoing wiring initiatives to ensure full LAN connections for every location defined by the campus as a network user.

Goal: To plan for expanded wireless solutions, including portable wireless labs, wireless connectivity for portables, and wireless connectivity for location outside the main building (e.g., stadiums, field houses, libraries, etc.).

Telephone Initiatives

The initiatives for the YISD telephone system are planned to converge the data and the phone networks:

Goal: Provide a VoIP solution in the 2001-02 and 2002-03 school years.

Goal: To provide for internal maintenance capacity for the SL100 with increased training for the YISD tele-communications staff.

Goal: To secure additional remote monitoring and diagnostic features on the phone system, allowing more centralized service of the phone system.

Gaol: To identify the additional features for the campuses to improve instructional services, administrative work requirements, and communication.

Ysleta ISD Long-Range Technology Plan
Supporting the Initiatives

The issue of support is as high a priority as any issue in the area of technology, and perhaps as difficult as any to effectively address.

YISD understands that to implement technology effectively there must be a support structure whose main goal is to ensure that the technology is in usable state, and that it is effectively used.

YISD has approached this issue with several goals in mind:

- to define what the district means by support
- to define what the effective levels of support are
- to assess what the impediments are to creating an effective support structure
- to evaluate levels, types, and approaches to support have been effective in the past
- finally, to define the support structure best suited for the district at this time and define the outcomes that the district wants to attain.

Defining Support

The definition of support, as it applies to the technology initiatives of the YISD, refers to three overall types of support:

1. Support to assure network up-time (availability) of resources
2. Support to assure all end-user devices are operational (computer repair/maintenance)
3. Support to assure that technology is used to its fullest potential in instructional settings

Support to Assure Network Up-Time

This type of support is similar to the support that we come to expect from utility companies, an expectation that the services will always be available.

Specifically, in a scenario where network resources are increasingly important in the instructional setting, then the resources must be available. If teachers are going to depend on the network for

Defining Support (continued)

Support to Assure Network Up-Time (continued)

delivery of a greater portion of the educational content, then they must be assured that the network swill be available.

To help ensure that the network resources are available, the support must include:

- ✓ Remote monitoring of campus LAN network equipment is as extensive as possible
- ✓ Network equipment (both WAN and LANs) are protected either by maintenance/support contracts or by provisions for in-house maintenance/replacement
- ✓ Creating a support team that provides coverage for all schools so response time, and recovery time for operations. is minimal

Support to Ensure End-User Devices are Operational

Within the computer repair/maintenance area. some of the most important features of the support plan include:

- ✓ Ensuring that the computers (and peripheral equipment. i.e., printers. scanners. etc.) complete their life span productively (for example. for computers. this would mean that they provide at a minimum five years of useful service)
- ✓ Machines are kept in inventory. at a district level facility. that can be used as loaners while repairs are completed
- ✓ The level of service for the entire district is satisfactory (i.e., enough technicians are on staff for servicing the equipment. or campuses have sufficient options (district staff and third-party service providers) to ensure that equipment is returned to service as quickly as possible

Defining Support (continued)

Support to Assure Fullest Use of Technology

This area of support deals with the integration of technology into the curriculum, and the most intelligent use of technology to support the instructional goals of the YISD.

This area of support focuses essentially on the use of the technology resources in the campus instructional settings (classrooms, library, labs, etc.) but it is necessarily dependent on the

Support to Assure Fullest Use of Technology (cont'd)

availability of resources guaranteed by the types of support described above.

The issues that are important in supporting the full use of technology in instruction include:

- ✓ Continued district-wide discussion (including the Division of Academics, the Department of Technology, and the campuses) of technology integration issues, i.e., the intelligent and effective integration of technology of technology into the curriculum
- ✓ As a first requirement of the discussion of integration issues, a definition of "integration of technology into the curriculum" should be created, focusing at least on the use of technology as a complement to the teaching strengths of teachers
- ✓ As in the other areas, a structure for the support of technology in instruction should be described

Supporting the YISD Educational Network (continued)

The support of the network is best accomplished through a combination of centralized and decentralized support personnel.

The support, though, can only be successful when the support is structured around a single unifying goal: to make the network and the technology resources available 100% of the time.

Appropriate Support Structure

The District has in the past depended on the district-level network services specialist and system technical specialists to ensure the viability of the district networks.

The Department of Technology Network Services team has the sole responsibility for the support of the WAN, has primary respon-sibility for the management and administration of the network electronics installed for the backbone of the campus LANs, and supports the work of the campus technology specialists/ coordinators in the administration of the resources within the campus LAN.

The goal for the support of the network is to define a support structure that includes at a minimum the support personnel described below, for each of the seven feeder patterns within the district:

- Network Specialist. This person will be expert in the administration and support of the campus LAN, including serving as advisor to the campus in the area of adding resources such as servers and instructional applications, deploying network resources within the campus, and troubleshooting and diagnosing problems with the network. This resources will report to the Network Services Manager for the Department of Technology, and will coordinate all work through the Network Services Manager and/or Network Systems Engineer. The goal is to staff one Network Specialist per feeder pattern.

Supporting the YISD Educational Network (continued)

Appropriate Support Structure (continued)

- System Technical Specialists. These individuals also are employees of the Network Services department, and they report to the Network Specialists. The System Techs work under the direction of the Network Specialists to troubleshoot LAN problems (hardware, operating systems, and adminis-trative software), to connect workstations and peripheral equipment to the LAN, to assist Network Specialists in the deployment of network resources. The goal is to staff one to two System Technical Specialists per feeder pattern.
- Computer Repair Technicians. Because of the fluctuation in demand for computer repair, this function will remain centralized for the immediate future (2001-02 school year) with yearly review of the need to assign the repair technicians to specific feeder patterns. These staff members, again for the time being, will continue to report to the Department of Technology Application Support Specialist (Help Desk Manager).The District has for the last several years encouraged campuses and departments to purchase extended warranties for all equipment, to reduce the manpower requirements within the district for repair of computers and peripherals. Because of the success of that practice, the district has been able to support the district demand for computer repair with a minimum of positions.
- Campus Technology Coordinators. These campus-based positions have in the past been responsible for a multitude of technology-related tasks. Depending on the campus, these staff members have been technically-oriented non-teaching positions, teachers with additional duties to support the network and/or support equipment maintenance, and/or support training for the use of technology in the curriculum. Though these positions will continue to be campus-based and report to the campus principal, the goal of the district is to

Supporting the YISD Educational Network (continued)

Appropriate Support Structure (continued)

- support the network and maintain computers with centralized staff, and to have the campus-based staff support the instructional initiatives.

Supporting the Instructional Initiatives

While support of the network is crucial to the success of technology projects in the district, that support must be complemented with strong programs to support the use of technology to help achieve the district's instructional objectives.

In general, the same considerations that apply to the area of technical support also apply to support of the use of technology, and it is important to understand that commitment to only one type of support will not result in the best outcomes for the YISD technology initiatives. The commitment must be made both to technical support of the network and hardware/software resources,

and equally to support of the use of technology in instructional settings.

Appropriate Support Structure for Technology Integration

In the past, as with technical support, the district has committed both district-level and campus-based efforts to the support of technology in instructional settings.

At the district level, professional development programs have addressed technology skill acquisition, curriculum development using technology, and the use of specific productivity and instructional software programs. Campuses have employed their resources for the support, via training within the campus or via third-party staff development programs (including college level coursework), for initiatives that are most effective for the teachers and programs in effect at specific campuses.

The goals for the support of wise and effective instructional use of technology include:

- Effective Centralized Support. The central players in the district's centralized support to campuses in the use of technology will be the Professional Development department of the Division of Academics, and from the Office of Technology the Instructional Technology department, the Network Services group, Telecommunications, and in some areas of training the Student System group.
- Campus Support. A consensus is required on the type of support offered by the campus, even if the consensus is that campuses should be given complete flexibility in terms of staffing, training subject, etc. For example, should a position (or variety of positions) be created for campus support (a job description should be defined for all positions the campuses can select from)? What are the support areas that should be included in the campus support: any level of technical support, training in technology integration area only, combination of technical/integration support, etc.?
- Articulation of Centralized/Campus Support Efforts. The District must define the articulation of the support initiatives, and provide for the continued articulation and coordination of efforts by including coordination of training efforts as one of the evaluation criteria for support.

Appropriate Technology Integration Support Activities

As part of the goal of supporting the use of technology at every level of the curriculum, the District will outline:

- Expectations for teacher technology skills.
- Expectations for representative technology activities at grade levels and subject matter.

The appropriate support activities will derive from the expectations above, to ensure that campuses are comfortable in meeting the technology expectations.

Supporting the Instructional Initiatives (continued)

Appropriate Technology Integration Support Activities (continued)

The activities will be tailored by both the district-level support providers (Professional Development, Instructional Technology, Network Services, etc.) and at each individual campus; however, the skills and training areas addressed at each campus will include:

- Network Skills. One of the most widespread features of modern computing is the networked environment. In order to ensure that our students are comfortable in that environment, the curriculum at all levels should include some academic work in a networked scenario.

  The training, therefore, should ensure that teachers are adept at the use of e-mail, internet access and searches, evaluation of Internet web sites, and how those Internet resources are valuable to instruction and how they are made available in the classroom.

- Productivity Software. Word processing, spreadsheet, and database software are increasingly important to teachers both for administrative tasks such as preparing lesson plans, proposals, etc., but they are also useful in classroom settings. Teachers who are recent graduates should be expected to have mastered these skills as part of their undergraduate requirements; however, some of the support for may address these areas.

- Presentation Software. PowerPoint (or similar software) has become a commonly used tool, both for classroom presentation and as a tool students use for presentation of their own material and reports. Training in the use of the software and in the most effective presentation of material should be made available at campuses.

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Supporting the Instructional Initiatives (continued)

Appropriate Technology Integration Support Activities (continued)

- Instructional Software. Campus initiatives often call for the implementation of specific instructional software, either for specific grade levels or throughout the campus. This type of training will necessarily be more specialized than the training for productivity and/or presentation software; however, both district-level and campus-based trainers should ensure that faculty are trained in the instructional software packages adopted at their campus.

  An important caveat to the issue of training for instructional software is that subject-specific instructional software does not necessarily satisfy the requirements for teaching technology applications. Campuses are being advised in this regard by way of review of technology integration goals written into the campus ICAP.

- Equipment Operation. Basic workstation operation and printer use are required topics. In addition, when initiatives such as the incorporation of portable wireless equipment are brought into a campus, training for the teachers is required in the operation and best use of the equipment in the classroom (including, perhaps, sample lessons or suggestions for classroom activities with the equipment). Increasingly, technology initiatives either require the use of peripherals (scanners, cameras, etc.) or are enhanced by the use of technology such as electronic whiteboards. Training in these areas is necessary for full integration of technology into the classroom instruction.

- Integration Strategies. The most important area of support, both for district level and campus level support staff, is integration of technology into the curriculum. Campus trainers are the best resources for identifying the types of integration strategies that will work most effectively at their

Supporting the Instructional Initiatives (continued)

Appropriate Technology Integration Support Activities (continued)

campus. While the network skills, equipment operations, and software use must be taught, the integration strategies are what takes the technology resources to the students in the most meaningful fashion.

Addressing Impediments to Effective Support

As with other K-12 school districts, YISD has met several challenges in defining and implementing the most effective support structure and strategies.

The issues that impact our success in defining an appropriate and effective support structure are the same issues that impact virtually every K-12 district in the country. The September 2000 issue of *Tech Support* identified four of the most common support issues in the K-12 environment:

- competition for technical support staff
- hesitancy on the part of campuses/districts to hire non-teaching faculty
- administrators outside of the Department of Technology are not fully aware of staffing demands
- the best support structure for K-12 has not yet been defined

The issues below are specific issues that YISD has addressed, or is addressing. They all to some extent acknowledge the impact of the four concerns above, and they all are issues that the District continues to address.Some of the issues discussed below

Budget constraints

There are several formulas for the calculation of the appropriate number of support personnel, most centering on support personnel